

SECTION 7.0

Airport Layout Plans

7.0 AIRPORT LAYOUT PLANS

7.1 INTRODUCTION

The Master Plan Update for Wichita Falls Municipal Airport (SPS) consists of this report and an airport layout plan (ALP) drawing set. The drawing set (published separately) consists of full size (30-inch by 42-inch) drawings that present proposed development at the Airport through 2029. The proposed development depicted on the plans is based upon the data and analyses presented in preceding sections of this report, as well as input received from airport management and interested stakeholders including the public.

The ALP drawing set consists of the following drawings:

- Cover Sheet (Including Index, Location Map, and Vicinity Map);
- Airport Layout Plan;
- Airport Airspace Plan;
- Inner Approach Surface Plan and Profile – Runway 17/35;
- Terminal Area Plan;
- Airport Property Map; and
- Land Use Plan.

Each drawing is described in the following subsections.

7.2 AIRPORT LAYOUT PLAN

The ALP has special significance and requires approval by the Federal Aviation Administration (FAA). It is necessary for the Airport to receive Federal funding of proposed capital improvements. Consequently, the ALP must be kept current and must depict any proposed capital improvement for which Federal funding is sought. The ALP also ensures that proposed capital improvements are planned in accordance with FAA design standards and safety requirements.

The ALP provides a scaled depiction of all existing and proposed facilities, their location on the Airport, and the associated FAA design standards. A reduced size version of the ALP is illustrated in **Figure 7-1**. A brief discussion of the major elements of the ALP is provided in the following paragraphs.

7.2.1 RUNWAYS

The ALP depicts all four runways at Sheppard Air Force Base along with their safety areas, object free areas (OFAs), and runway protection zones (RPZs). The plan does not recommend any changes to the number of runways, their lengths, or their widths. The plan does recommend the reconstruction of Runway

17/35 to improve the existing pavement’s condition and to bring the runway into compliance with FAA standards for line-of-sight. The existing runway’s profile includes a high point that currently precludes visibility from one end of the runway to the other end. The proposed reconstruction will eliminate the high point and provide a clear line-of-sight to and from each end of the runway.

7.2.2 TAXIWAYS

The plan does not recommend new taxiways or changes to the alignment of existing taxiways. However, the plan does recommend strengthening and widening Taxiway “C” to increase pavement strength and to meet the FAA design standard for Design Group III aircraft with a wheelbase greater than 60 feet (i.e., the MD-80). SPS regularly receives charter aircraft operations that consist of MD-80’s and B-737’s. The Airport also receives diversions of aircraft as large as MD-80s when adverse weather affects operations at Dallas/Fort Worth International Airport (DFW). Consequently, Taxiway “C” receives operations by larger aircraft with higher pavement loads than the turboprops and regional jets that are regularly operated by American Eagle.

As previously described in Section 4.0, the FAA design standard (as described in FAA Advisory Circular 150/5300-13, Airport Design) for aircraft in Design Group III is 50 feet. However, in cases where the taxiway also must accommodate aircraft that have a long wheelbase (i.e., a distance from the nose gear to the main gear of more than 60 feet), FAA design standards recommend that the taxiway width be increased to 60 feet to account for the fact that the aircraft’s main gear will track farther from the taxiway centerline during turns. The wider taxiway width accounts for this fact and maintains a proper safety margin between the outside of the main gear and the edge of pavement as the aircraft turns. The MD-80 aircraft that use SPS have a wheelbase that exceeds 60 feet in length. Therefore, Taxiway “C” should be increased to a width of 60 feet to better accommodate these aircraft operations and minimize the possibility of an aircraft landing gear exiting the pavement edge.

7.2.3 AIRFIELD LIGHTING

Existing airfield lighting is owned and operated by Sheppard Air Force Base. The ALP does not recommend changes to airfield lighting other than improvements necessitated by changes to airfield pavements such as the reconstruction of Runway 17/35 and the widening of Taxiway “C.”

7.2.4 NAVIGATIONAL AIDS

The ALP does not recommend any changes to the airfield’s navigational aids. The airport’s existing instrument landing systems (ILS) on Runway 15C and Runway 33C are sufficient to accommodate aircraft operations at SPS during periods of low visibility. The existing visual approaches to Runway 17/35 should be maintained.

7.3 TERMINAL AREA PLAN

The terminal area plan illustrates the recommended replacement of the existing passenger terminal along with the proposed aircraft parking apron, automobile parking, and access roadways. **Figure 7-2** depicts the terminal area plan.

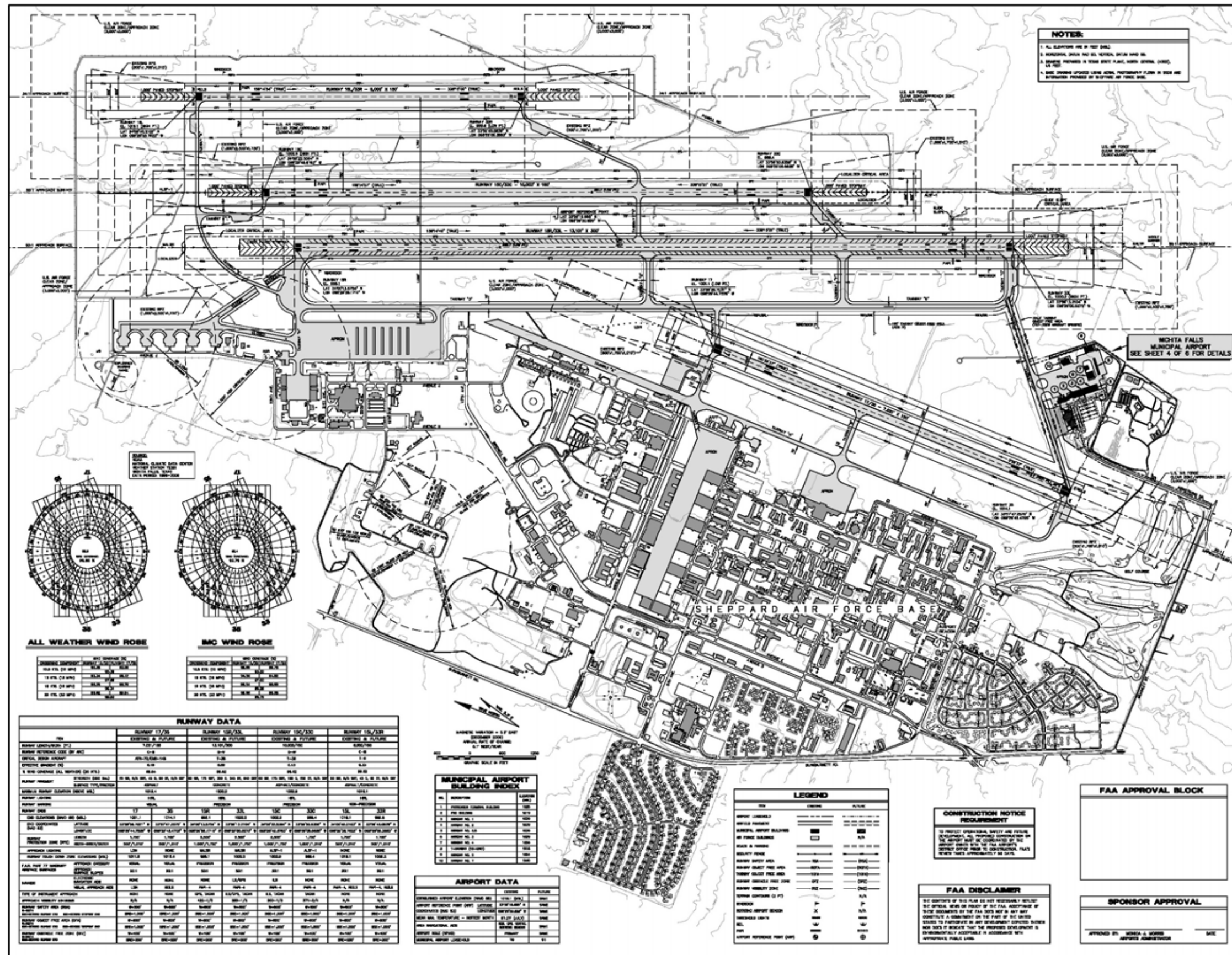


FIGURE 7-1
AIRPORT LAYOUT PLAN

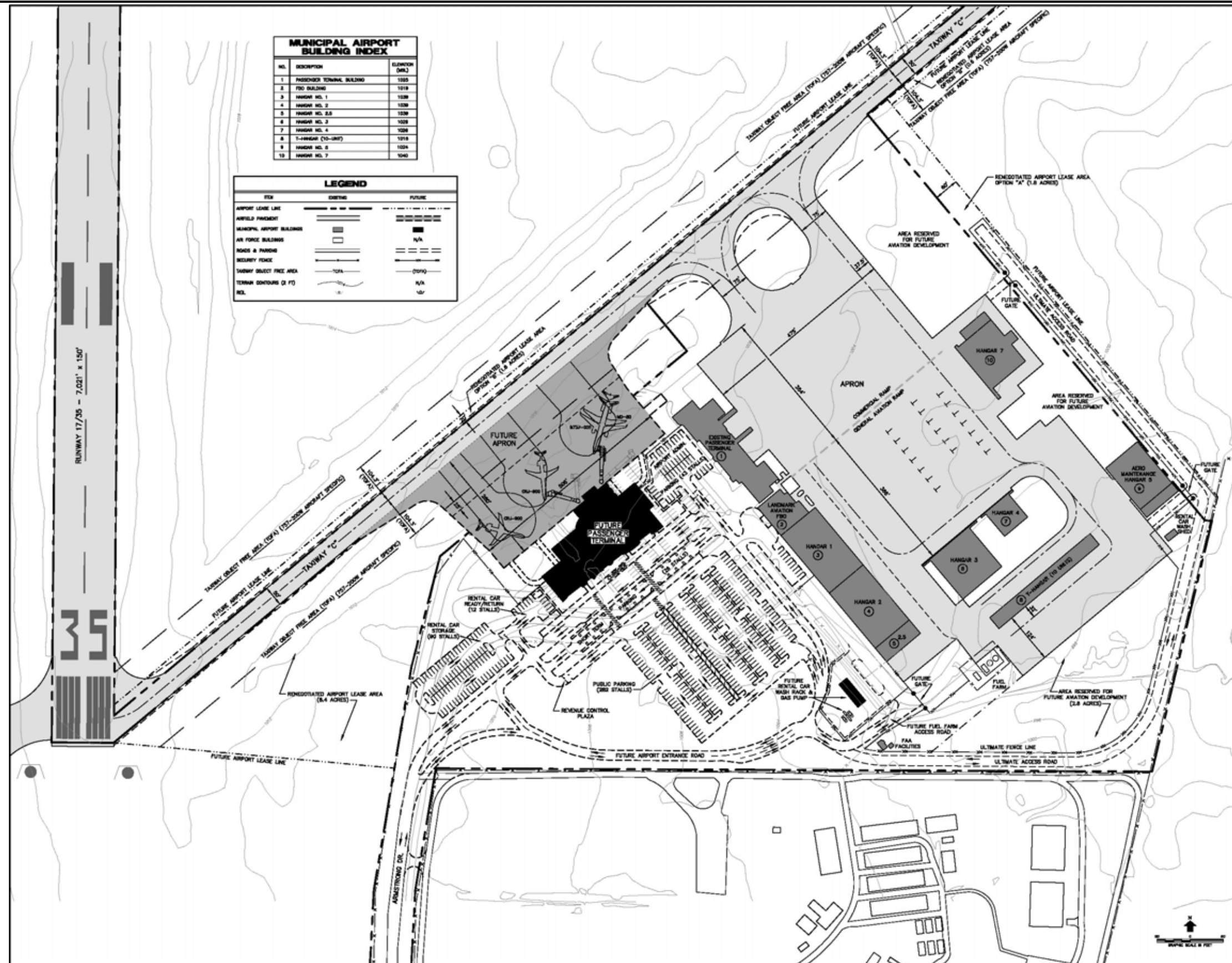


FIGURE 7-2
TERMINAL AREA PLAN

7.3.1 PASSENGER TERMINAL

The terminal area plan depicts the recommended replacement of the existing passenger terminal with a new passenger terminal located south of the existing building. This building would provide 38,297 square feet of space for all terminal functions including ticketing, baggage make-up security screening, departure holdroom, concessions, restrooms. and baggage claim. Additional space is provided for airport administration, utilities, a meditation room, and an United Service Organizations (USO) facility. The terminal would have one passenger loading bridge and would be capable of accommodating a second loading bridge, if needed, in the future. The placement of the terminal building in this location would enable it to be constructed while maintaining airline operations in the existing passenger terminal.

7.3.2 AIRCRAFT PARKING APRON

The terminal area plan depicts the construction of a new 17,016-square-yard air carrier aircraft parking apron that is capable of accommodating two regional aircraft and one air carrier aircraft simultaneously. The location of the aircraft parking apron would be along Taxiway “C,” southwest of the existing aircraft parking apron. The apron would have a setback of 104.3 feet from the centerline of Taxiway “C.” This setback would provide clearance for a B-757-200 aircraft with winglets. Although the B-757-200 does not currently operate from SPS, it is the largest aircraft that may have a need to use Taxiway “C” in the future.

The depth of the apron provides for a service vehicle road of 25 feet and sufficient space to accommodate a parked MD-80 or B-737. Parking positions for two regional jet/turboprop aircraft are provided next to the air carrier aircraft parking position. The overall depth of the aircraft parking apron from the edge of Taxiway “C” is 280 feet. The proposed width of the apron is 506 feet. This width assumes that aircraft in all three parking positions would power out of their respective parking positions. A connection from the existing aircraft apron to the proposed aircraft apron would provide access for service vehicles.

7.3.3 AUTOMOBILE PARKING

The terminal area plan depicts the construction of new public short- and long-term automobile parking east of the proposed passenger terminal. Short-term parking would be directly in front of the terminal and could be revenue-controlled through the use of parking meters. Long-term parking would be directly behind short-term parking and would be access-controlled through the use of entrance and exit gates.

Rental car parking would be located south of the proposed terminal, while parking for airport tenants would be located north of the proposed terminal. Careful phasing of construction would enable the majority of existing parking to remain operational while new parking is constructed. Parking for airport tenants, however, could not be constructed until the existing passenger terminal is closed. Overall, the plan provides for the construction of 453 parking spaces.

7.3.4 AIRPORT ACCESS ROAD

The terminal area plan depicts the construction of a new loop road that would provide access to all proposed parking facilities and the general aviation area. Unlike the existing access roadway, it would support two-way traffic to allow service vehicles to avoid travelling in front of the passenger terminal.

7.3.5 GENERAL AVIATION FACILITIES

The terminal area plan provides for two improvements to general aviation facilities. The first item is a drop-off and pick-up area at the rear of the Landmark Aviation building along with a small parking area for

Fixed Base Operator (FBO) customers. This improvement is included in the construction of the passenger terminal complex since its construction would require new access and parking for the FBO. The proposed drop-off area would work especially well if the FBO is remodeled in the future to provide an entrance from the rear of the building.

The other improvement shown in the terminal area plan is a security- and safety-related project that would extend the airport access road around to the north side of the existing aircraft apron. This improvement would accomplish several goals. First, it would substantially reduce the number of airport users that need to access the secure portion of the airfield to reach their facility, thereby improving security. Second, it would improve safety by reducing the potential for conflicts between vehicles and aircraft. Finally, it would provide a means of access to several sites that could be considered for future aviation development. These sites include nearly 3 acres located at the east end of the apron, as well as additional sites between Hangars 5 and 7 and west of Hangar 7.

7.3.6 RENTAL CAR SERVICE FACILITY

The terminal area plan provides a space for a rental car service facility on the south side of the road across from Hangar 2.5. This location could accommodate a three-bay manual car wash building along with a small area for vehicle refueling. This location is convenient to existing and proposed rental car parking lots.

7.3.7 FUEL FARM FACILITIES

No changes to the existing fuel farm are recommended by the terminal area plan. The existing facility has adequate capacity to meet existing and future needs.

7.4 AIRPORT AIRSPACE DRAWING

The airspace requirements associated with civilian and military airports are defined by Part 77 of the Federal Aviation Regulations (FAR). These regulations define a series of imaginary surfaces that extend upward and outward from an airport’s runways. The purpose of these surfaces is to ensure the safe and efficient use of navigable airspace by aircraft. Objects that penetrate Part 77 surfaces are obstructions and may be hazards to air navigation. Therefore, objects that penetrate Part 77 surfaces should be removed, lighted, or appropriately marked in accordance with FAA guidance.

Part 77 defines different types of imaginary surfaces for military airports and civilian airports. The differences between the surfaces reflect differences in the performance and operational characteristics of military aircraft versus civilian aircraft. The imaginary surfaces for military airports are applicable to all four runways at Sheppard Air Force Base and have been incorporated into the City of Wichita Falls airport zoning ordinance. The City’s existing zoning is appropriate and adequate for ensuring the protection of airspace to all of the airport’s runways.

While the application of the military airport surfaces is appropriate and desirable for the City’s zoning purposes, the City’s lease with the U.S. Air Force includes only Runway 17/35. Therefore, FAA funding of obstruction removal would be limited to obstructions that penetrate civilian airport imaginary surfaces for Runway 17/35. Therefore, the airspace drawing contained in the ALP drawing set is limited to Runway 17/35 and is based upon the application of civilian airport surfaces.

Figure 7-3 shows the airport airspace drawing with the applicable Part 77 surfaces for civilian airports on Runway 17/35. No obstacles penetrate these surfaces.

7.5 INNER APPROACH SURFACE PLAN AND PROFILE - RUNWAY 17/35

Figure 7-4 depicts the Inner Approach Surface Plan and Profile for Runway 17/35. This drawing provides close up views of the areas immediately beyond the runway ends. No obstructions penetrate this portion of the approach surface.

7.6 AIRPORT PROPERTY MAP

The airport's property map is depicted in **Figure 7-5**. The property map depicts the area leased by the City of Wichita Falls from the U.S. Air Force for use as a municipal airport. The lease encompasses approximately 79 acres. A re-negotiation of the existing lease is recommended by the Master Plan Update to provide the City of Wichita Falls with sufficient space to construct the following items:

- A proposed new passenger terminal and associated aircraft parking apron.
- Safety and security improvements that consist of an access road around the north side of the general aviation area.
- A strengthening and widening of Taxiway “C” to 60 feet from its existing width of 50 feet.

Although the proposed passenger terminal would be constructed within the boundary of the City’s existing leasehold, the associated aircraft parking apron would extend from Taxiway “C” to the terminal. That property is not presently contained within the City’s leasehold. Therefore, the Master Plan Update recommends that the City of Wichita Falls re-negotiate the lease with the U.S. Air Force to obtain all property from the southeast side of Taxiway “C” to the existing lease boundary within the area extending from the threshold of Runway 35 to the taxiway entrance to the existing aircraft parking apron. This area encompasses approximately 8.4 acres.

In addition to the property needed for the construction of the proposed passenger terminal, the Master Plan Update recommends that the City negotiate two leasehold options for additional property that would be required to construct other recommended improvements. It is recommended that these areas be negotiated as options because the timing of the projects is longer-term than the passenger terminal and, therefore, is less certain. This approach may save the City money if the property is not required until later in the planning period or future plans change.

Option A could encompass a 60-foot-wide strip of property along the northeast side of the City’s current leasehold on the northeast side of Hangars 5 and 7. This property would allow the construction of an access road to Hangars 5 and 7 and any other hangar facilities that are ultimately constructed on the north or east sides of the aircraft apron. This project would offer substantial security benefits by eliminating the need for users of these and future facilities from entering the secure portion of the airfield. This property encompasses approximately 1.7 acres.

Option B could encompass a strip of property along each side of Taxiway “C” that would enable the taxiway to be widened to a width of 60 feet in the future. A strip of property approximately 20 feet wide on each side of Taxiway “C” would provide sufficient space for the taxiway to be widened and allow for the relocation of taxiway edge lights 10 feet from the pavement edge. This area would encompass approximately 1.6 acres. **Table 7-1** provides a summary of existing and proposed leasehold areas.

TABLE 7-1 EXISTING AND PROPOSED AIRPORT LEASEHOLD	
Leasehold	Acres
Existing	79
Future Addition for Passenger Terminal	8.4
Option A (Security Improvement - Access Road)	1.8
Option B (Taxiway “C”)	2.2
Total	91.4

Source: URS Corporation, 2010.

7.7 LAND USE PLAN

The land use plan depicts how property within the City’s existing and proposed future leasehold is planned to be used throughout the study period. **Figure 7-6** provides a depiction of land use with the City’s existing and proposed leasehold. Land use was classified into the following categories: airfield operations, passenger terminal facilities, general aviation facilities, support facilities, and open space. **Table 7-2** provides a listing of the number of acres devoted to each land use and their percentage of the total future leasehold for the municipal airport.

TABLE 7-2 AIRPORT LAND USE		
Land Use	Acres	Percent of Future Leasehold
Airfield Operations	35	38%
Passenger Terminal Facilities	27	30%
General Aviation Facilities	22	24%
Support Facilities	1	1%
Open Space	6	7%
Total	91	100%

Source: URS Corporation, 2010.

The Airfield Operations category consists of land with the leasehold that is devoted to runways and taxiways, as well as land within the taxiway OFA. The Airfield Operations category is shown in yellow on Figure 7-6 and encompasses approximately 35 acres. This land uses consumes the largest percentage of space in the City's future leasehold at 38 percent.

The Passenger Terminal Facilities category includes the existing and future passenger terminal, as well as the aircraft parking apron devoted to passenger services, all automobile parking areas associated with the passenger terminal, and the access roadways. This land use encompasses 27 acres and represents the second largest use of land.

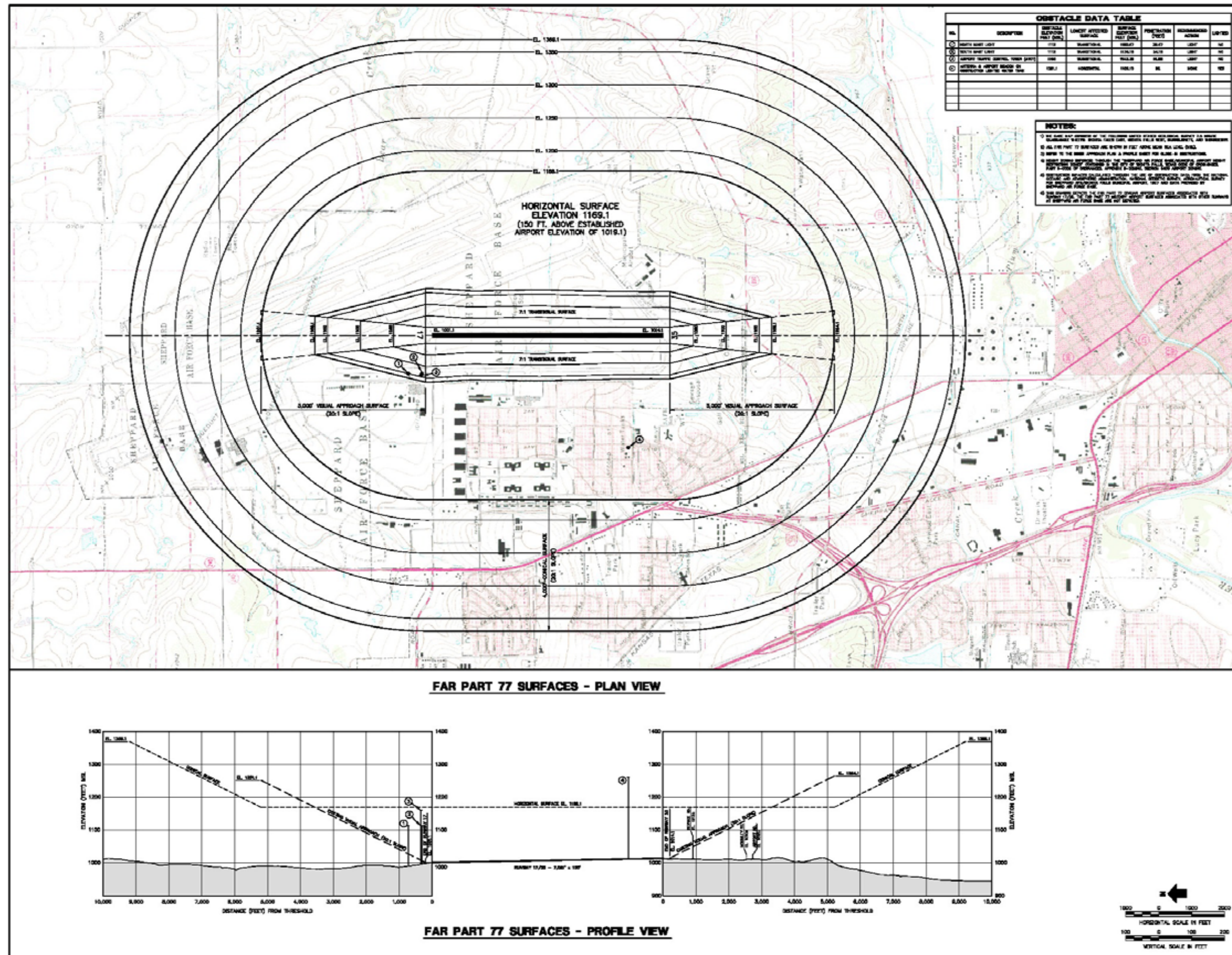
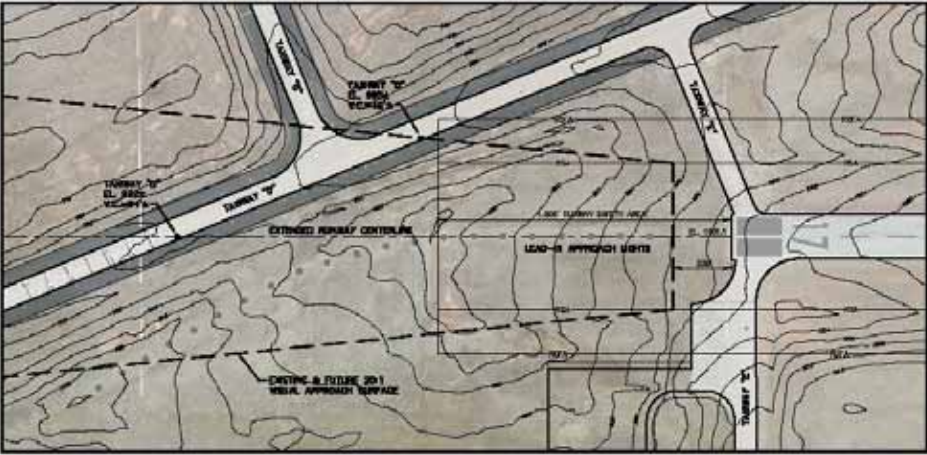
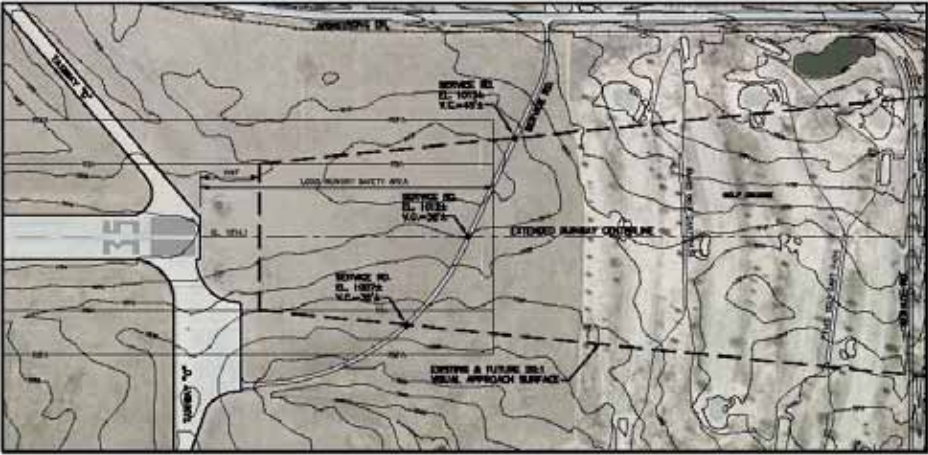


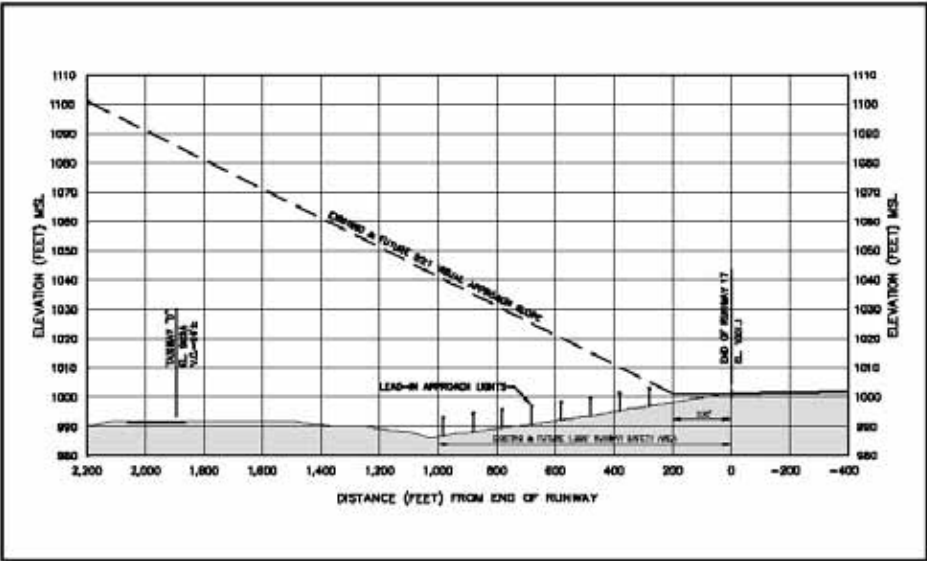
FIGURE 7-3
AIRPORT AIRSPACE DRAWING



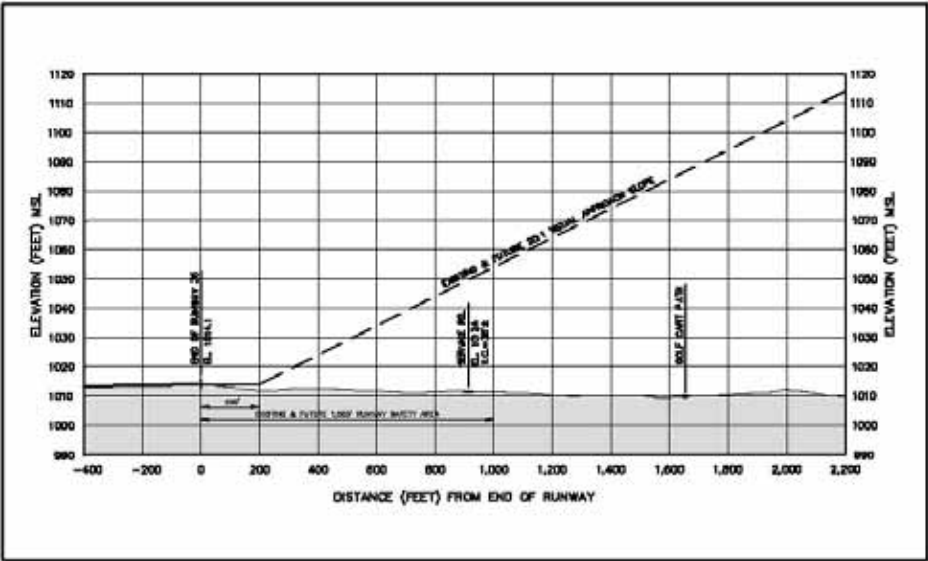
RUNWAY 17 INNER APPROACH SURFACE PLAN VIEW



RUNWAY 35 INNER APPROACH SURFACE PLAN VIEW



RUNWAY 17 INNER APPROACH SURFACE PROFILE VIEW



RUNWAY 35 INNER APPROACH SURFACE PROFILE VIEW



DESIGNED BY: J. L. BROWN, JR. ENGINEER
CHECKED BY: J. L. BROWN, JR. ENGINEER
DATE: 10/1/01

FIGURE 7-4
INNER APPROACH SURFACE PLAN AND PROFILE – RUNWAY 17/35

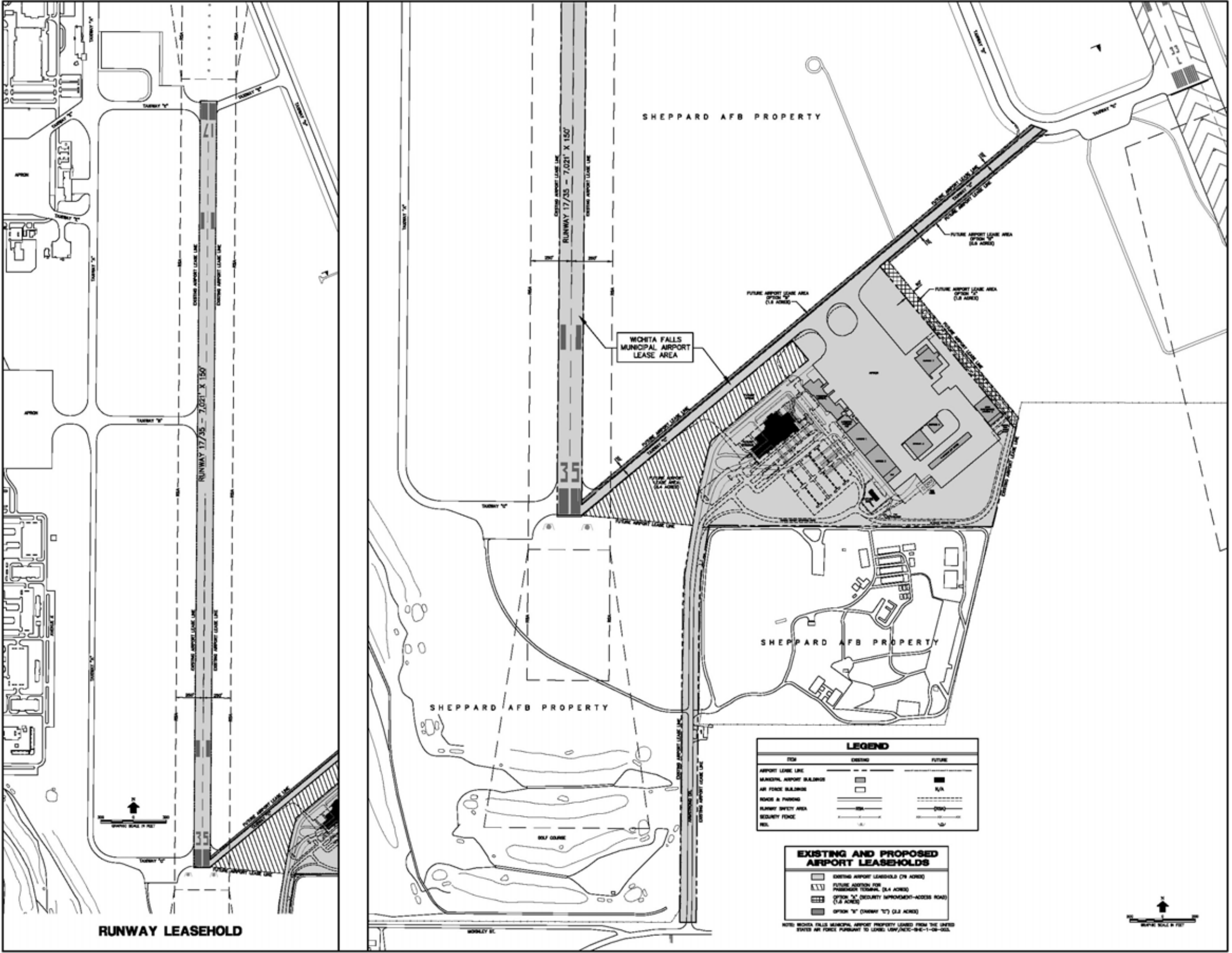


FIGURE 7-5
AIRPORT PROPERTY MAP



The General Aviation Facilities category consists of facilities operated by Landmark Aviation, all hangars, aircraft parking apron, and automobile parking that is not associated with the passenger terminal. It also encompasses land at the far eastern end of the leasehold that could be used for future aviation development. It encompasses 22 acres.

The Support Facilities category consists of space devoted to a rental car service facility, the fuel farm and FAA facilities. This category consumes the smallest amount of space at just 1 acre and 1 percent of the total future leasehold area.

The last category is Open Space. It consists of land between the Airport Operations area and adjoining uses. In some cases, such as the area between the Taxiway “C” and the entrance road, it could be used for future facilities beyond the timeframe of this study. Other areas of open space, such as the areas between Taxiway “C” and the existing air carrier apron cannot be used for other purposes due to aircraft clearance requirements. Open space accounts for 6 acres of land use.

SECTION 8.0

Facilities Implementation Plan

8.0 FACILITIES IMPLEMENTATION PLAN

8.1 INTRODUCTION

This section identifies the capital improvement projects that comprise the development plans presented in the preceding section. Projects were identified on the basis of safety and capacity requirements, as well as airport management and tenant priorities. The ultimate implementation of projects will be decided on the basis of available funds, environmental approvals, and management and tenant priorities.

This section provides conceptual cost estimates for all proposed projects in 2010 dollars. Cost estimates include construction costs and program (soft) costs. Construction costs include all physical items and the labor associated with their construction. Program costs include design fees, construction management, change order contingency, design services during construction, geotechnical fees, and surveying fees. Details of the cost estimates are provided in **Appendix D**.

Development periods for these projects were established as follows: short-term (2010 to 2014), intermediate-term (2015 to 2019), and long-term (2020 to 2029). The ultimate timing of project implementation will be determined by funding availability, environmental approvals, and management and tenant priorities.

8.2 SHORT-TERM PROJECTS (2010 THROUGH 2014)

The priorities in the short-term are the reconstruction of Runway 17/35, the rehabilitation of the existing air carrier aircraft parking apron, the construction of a rental car service facility, the preparation of environmental documentation for the proposed passenger terminal and the construction of the proposed passenger terminal, and associated facilities. The reconstruction of Runway 17/35 and the aircraft parking apron is necessitated by the poor conditions of existing pavements. Likewise, the construction of the proposed passenger terminal is necessitated on the basis of passenger and tenant demand and on-going maintenance problems in the existing passenger terminal, as previously described in Sections 2.0 and 4.0. Short-term projects are described below and are illustrated in **Figure 8-1**. Estimated costs for these projects are shown in **Table 8-1**.

TABLE 8-1 SHORT-TERM PROJECTS AND COST ESTIMATES		
Project Number	Project Name	Estimated Cost
1	Reconstruct Runway 17/35 – Phase 1	\$4,539,203
2	Reconstruct Runway 17/35 – Phase 2	\$5,339,753
3	Rehabilitate Existing Air Carrier Aircraft Parking Apron and Install High-Mast Lighting	\$1,716,720
4	Construct Rental Car Service Facility	\$324,761
5	Prepare Environmental Documentation for Passenger Terminal	\$35,000
6	Construct New Passenger Terminal Complex	\$30,259,000
Total		\$42,214,437

Source: URS Corporation, 2010.

8.2.1 RECONSTRUCT RUNWAY 17/35 – PHASE 1

This project consists of the reconstruction of the southern 4,250 feet of Runway 17/35 to rehabilitate the runway pavement that is presently in very poor condition due to pavement cracking and deterioration. Project elements include asphalt pavement demolition, excavation, cement stabilized subgrade, crushed aggregate base course, bituminous surface course, pavement markings, perforated underdrains, seeding, temporary and permanent erosion, and sedimentations controls. The reconstruction of Runway 17/35 is divided into a Phase 1 and a Phase 2 due to funding constraints.

8.2.2 RECONSTRUCT RUNWAY 17/35 – PHASE 2

This project consists of the reconstruction of the northern 2,771 feet of Runway 17/35 to rehabilitate the runway pavement, as described in Phase 1, and remove a high point in the runway profile that does not meet FAA grading standards for line-of-sight from one end of the runway to the other. The runway's current profile does not allow a pilot of a small aircraft to see if an aircraft is located at the opposite end of the runway. This project would resolve this issue and bring the runway into compliance with FAA standards.

8.2.3 REHABILITATE EXISTING AIR CARRIER AIRCRAFT PARKING APRON AND INSTALL HIGH-MAST LIGHTING

This project consists of the rehabilitation of 38,100 square yards of existing aircraft parking pavement that extends from Taxiway "C" to the beginning of the asphalt pavement located in front of Hangars 3 and 4 (as shown in Figure 8-1). As described in Section 2.0, this pavement currently suffers from cracking and joint seepage. Recommended improvements consist of panel replacement, spall repair, and joint sealing. This project also includes the installation of four high-mast lights to improve visibility on the aircraft parking apron.

8.2.4 CONSTRUCT RENTAL CAR SERVICE FACILITY

As described in Section 4.0, existing rental car servicing is conducted from a privately-owned facility along Armstrong Drive and a small metal shed located at the northeast corner of the aircraft apron which must be accessed through a secure gate. This project would replace these existing facilities and provide space for a third rental car company in a consolidated rental car "quick-turn" service facility. This facility would consist of an access-controlled area that contains a three-bay manual car wash facility with adjoining equipment storage. A small re-fueling area would also be part of the facility.

A potential location for this facility is south of Hangar 2.5 next to the existing roadway. This location is visually shielded from the existing terminal area and could likewise be shielded from proposed terminal facilities, yet it would be close to existing and proposed rental car parking lots. This site also offers advantages in terms of not requiring access to a secure portion of the airfield and, therefore, would improve overall security. Finally, this site can be accessed from an existing roadway and is not dependent upon the construction of the proposed passenger terminal complex.

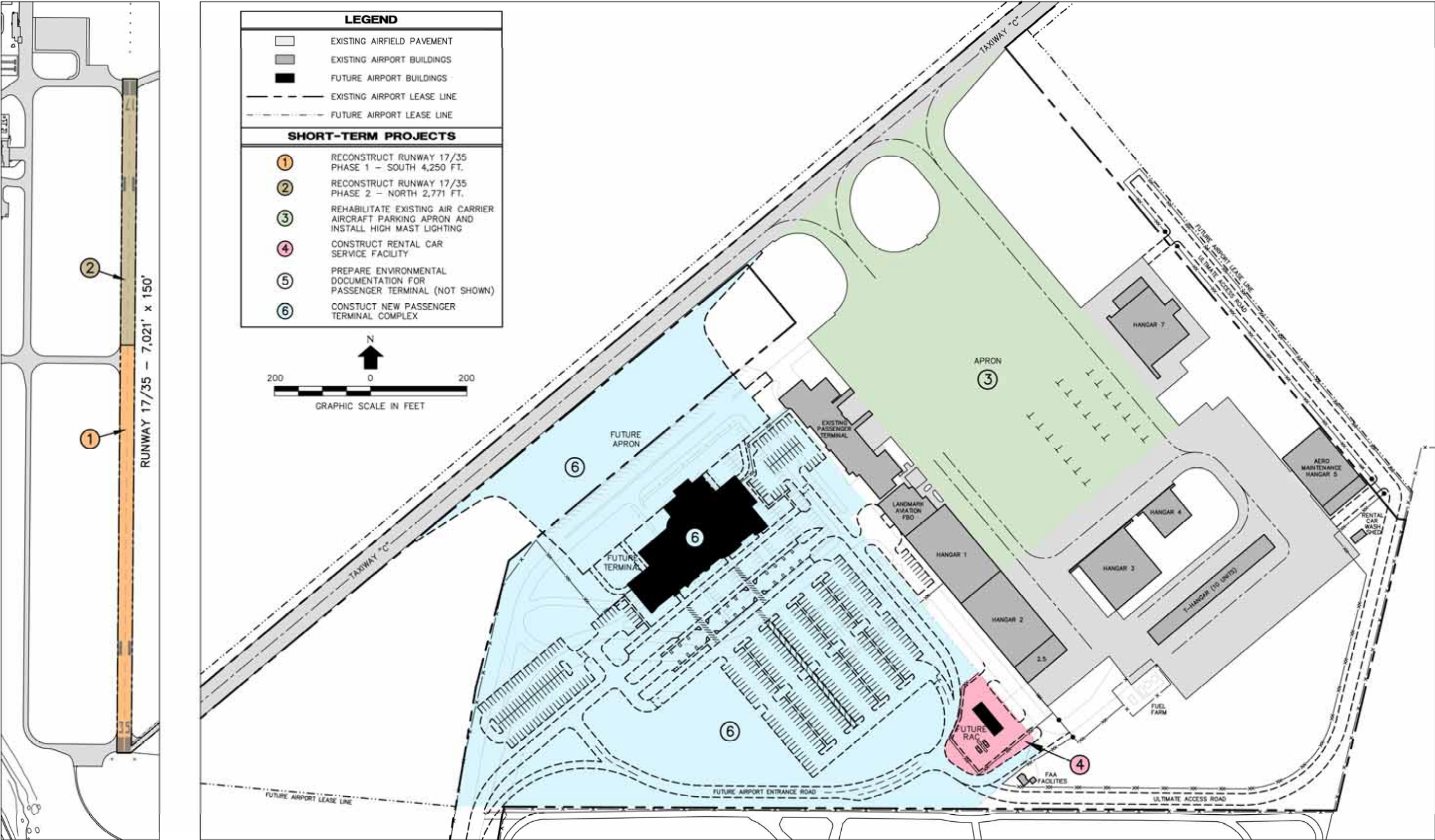


FIGURE 8-1
SHORT-TERM (2010-2014) PROJECTS

8.2.5 PREPARE ENVIRONMENTAL DOCUMENTATION FOR PASSENGER TERMINAL

The construction of a new terminal complex would require the preparation of environmental documentation to ensure compliance with the National Environmental Policy Act. It is anticipated that the level of environmental documentation required would consist of a “Documented Categorical Exclusion” on the basis of existing site conditions and the fact that proposed facilities are primarily located in currently developed areas.

8.2.6 CONSTRUCT NEW PASSENGER TERMINAL COMPLEX

This project consists of constructing a new passenger terminal, aircraft parking apron, and associated automobile parking and roadways. This project also includes required utility relocations needed for water supply, sanitary sewer, and electrical supply. The proposed passenger terminal consists of a one-level, 38,297 square-foot building. The proposed aircraft parking apron consists of 17,016 square yards that is capable of accommodating two regional aircraft and one air carrier aircraft simultaneously. The proposed automobile parking areas provide a total of 453 spaces for short- and long-term public use, rental cars, and airport administration. Finally, the proposed loop road provides access to all proposed and existing terminal facilities.

As previously described in Section 5.5.3, the design of the proposed passenger terminal complex was originally intended to begin in 2010 with construction during 2011 and 2012. As a result of funding limitations (as described in Section 9.0) and consultation with the City Council and city management, the proposed passenger terminal complex has been deferred to the latter part of the short-term period. The schedule now calls for design services to begin in 2013 with construction to follow during 2014 and 2015.

8.3 INTERMEDIATE-TERM PROJECTS (2015 THROUGH 2019)

Project priorities during the intermediate-term include the demolition of the existing passenger terminal, the rehabilitation and reconstruction of existing aircraft parking aprons and the implementation of security improvements consisting of new access and fencing. Intermediate-term projects are described below and are illustrated in **Figure 8-2**. Estimated costs for these projects are shown in **Table 8-2**.

TABLE 8-2 INTERMEDIATE-TERM PROJECTS AND COST ESTIMATES		
Project Number	Project Name	Estimated Cost
7	Demolish Existing Passenger Terminal	\$577,777
8	Rehabilitate Existing General Aviation Aircraft Parking Apron	\$343,335
9	Reconstruct Existing General Aviation Aircraft Parking Apron	\$2,195,265
10	Security Improvement (Extend Access Road & Fencing)	\$619,041
Total		\$3,735,418

Source: URS Corporation, 2010.

8.3.1 DEMOLISH EXISTING PASSENGER TERMINAL

This project consists of demolishing and disposing of the existing passenger terminal building and restoring the site to a grassed area that would be suitable for the long-term expansion of terminal-related facilities or another facility to be identified in the future.

Sheppard Air Force Base, as the original constructor of the terminal building, has an ownership interest in the structure. Consequently, demolition plans will require the approval of and coordination with appropriate Air Force personnel.

8.3.2 REHABILITATE EXISTING GENERAL AVIATION AIRCRAFT PARKING APRON

This project consists of the rehabilitation of 7,300 square yards of existing concrete apron that extends from east of Hangar 5 around to the fuel farm as depicted in Figure 8-2. This apron suffers the same cracking, spalling, and joint issues that afflict the air carrier apron. Recommended actions include panel replacement, spall repair, and joint sealing.

8.3.3 RECONSTRUCT EXISTING GENERAL AVIATION AIRCRAFT PARKING APRON

The project consists of the reconstruction of existing General Aviation asphalt apron located in front of Hangars 3 and 4 and surrounding the T-Hangars. This pavement needs replacement due to its deteriorated condition and drainage problems.

This project includes the reconstruction of 14,000 square yards of pavement. The project elements include demolition of the existing asphalt pavement, construction of new 6-inch Portland Cement Concrete (PCC) pavement, a 6-inch thick crushed aggregate base course, and a 6-inch thick lime stabilized subgrade. Other project elements include drainage improvements consisting of a trench drain, reinforced concrete storm sewer pipe, approximately 400 linear feet of open channel, and perforated underdrains.

8.3.4 SECURITY IMPROVEMENTS (EXTEND ACCESS ROAD & FENCING)

Access to Hangars 5 and 7, as well as the rental car wash facility currently requires access through a secure gate and a drive across the aircraft apron. This project would extend the airport’s existing access road around to the north side of the terminal area and provide associated fencing to provide access to these facilities without accessing and crossing the existing aircraft apron. This project would reduce the number of persons accessing the secure portion of the airfield.

8.4 LONG-TERM PROJECTS (2020 THROUGH 2029)

Project priorities during the long-term include maintaining the pavements of Runway 17/35 in good condition and upgrading Taxiway “C” and widening its pavement to 60 feet from its current width of 50 feet. Long-term projects are described below and are illustrated in **Figure 8-3**. Estimated costs for these projects are shown in **Table 8-3**.

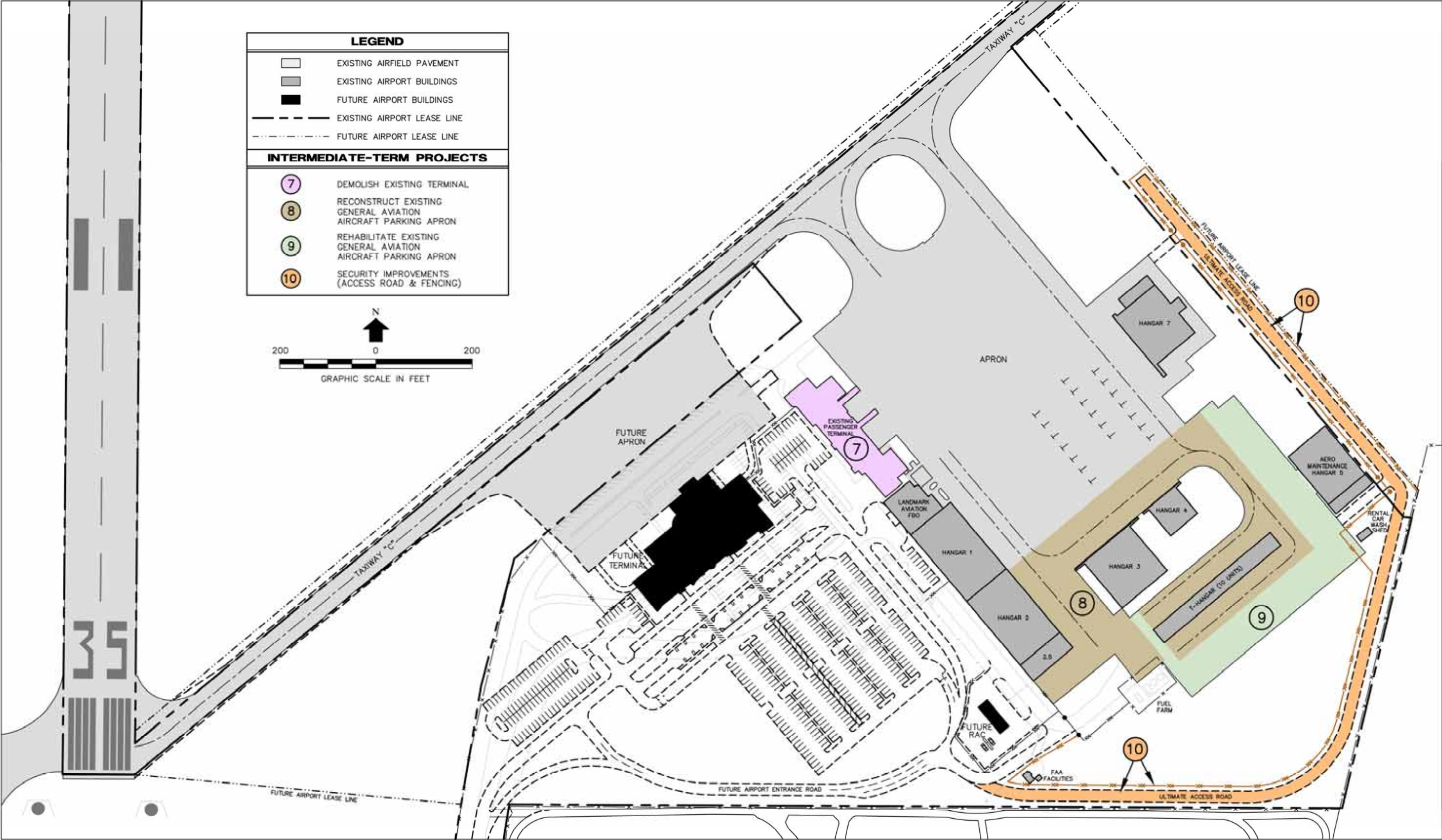


FIGURE 8-2
INTERMEDIATE-TERM (2015-2019) PROJECTS

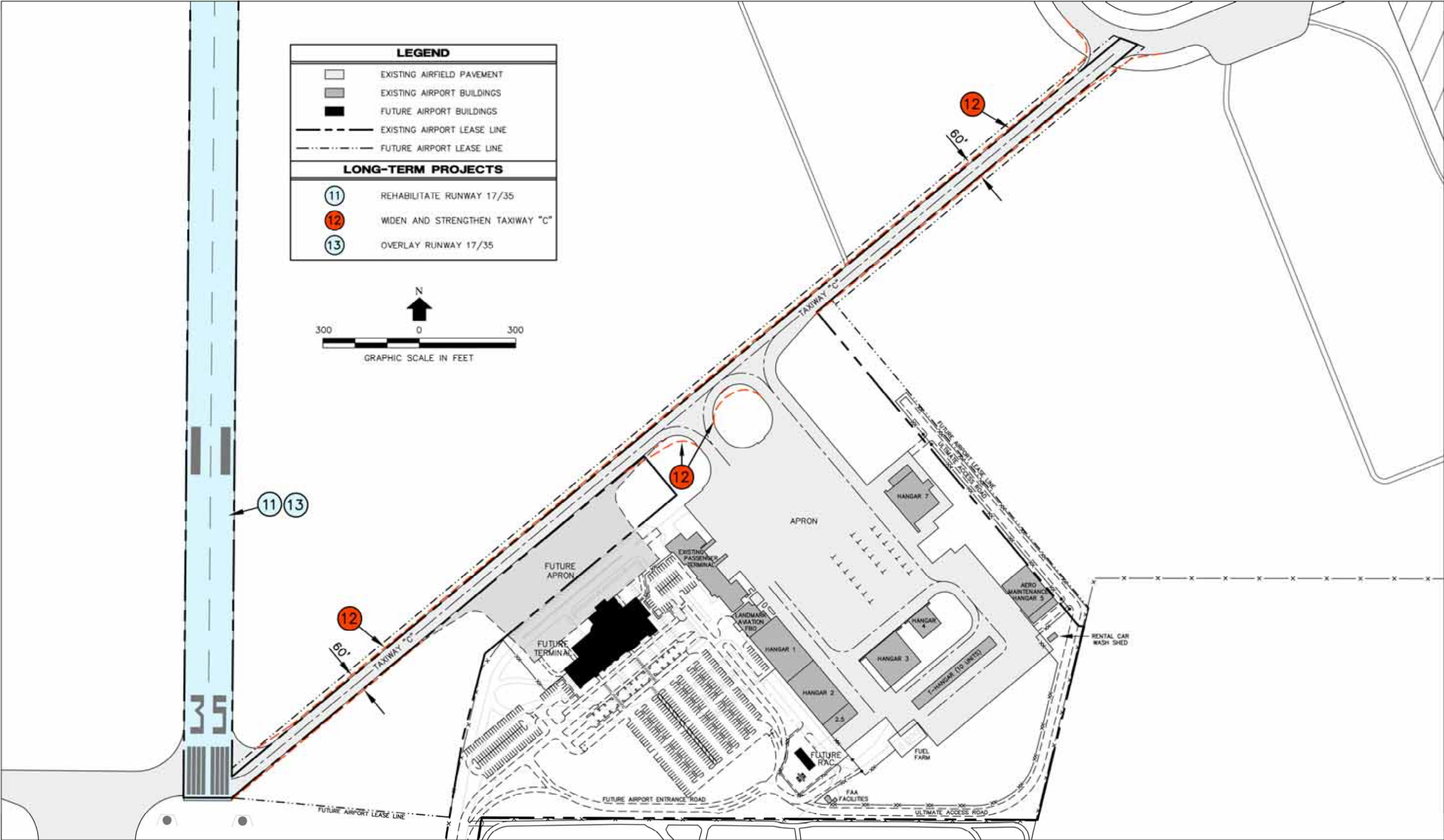


FIGURE 8-3
LONG-TERM (2020-2029) PROJECTS

TABLE 8-3 LONG-TERM PROJECTS AND COST ESTIMATES		
Project Number	Project Name	Estimated Cost
11	Rehabilitate Runway 17/35	\$642,426
12	Widen and Strengthen Taxiway “C”	\$4,059,180
13	Overlay Runway 17/35	\$4,196,244
Total		\$8,897,850

Source: URS Corporation, 2010.

8.4.1 REHABILITATE RUNWAY 17/35

In the long-term it is anticipated that some maintenance will be required for the pavements of Runway 17/35 that are reconstructed in 2010 and 2011. This project includes the application of a coal-tar rejuvenator/sealer, crack sealing, and the application of new pavement markings. It is anticipated that this project would occur at the beginning of the long-term period.

8.4.2 WIDEN AND STRENGTHEN TAXIWAY “C”

This project consists of the widening of Taxiway “C” to a width of 60 feet from its existing width of 50 feet and strengthening the pavement to accommodate air carrier sized aircraft that use the terminal. As noted in Section 4.0, the existing taxiway width of 50 feet does not meet FAA design standards for Design Group III aircraft that have a wheelbase equal to or greater than 60 feet. This project would bring Taxiway “C” into compliance with FAA design standards and would increase the taxiway’s strength to improve its ability to handle larger aircraft. Project elements include a 6-inch thick bonded concrete overlay, the construction of 16-inch thick PCC pavement on a 6-inch thick crushed aggregate base course with a 12-inch thick lime stabilized subgrade, the installation of perforated underdrains, and the application of new pavement markings.

8.4.3 OVERLAY RUNWAY 17/35

At the end of the long-term period, the pavements of Runway 17/35 will be approaching 20-years of age. Consequently, this project consists of a pavement overlay for Runway 17/35. Project elements include pavement milling, tack coat, bituminous overlay, and pavement markings.